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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

POLLACK, MELVIN H

ART UNIT

PAPER NUMBER

2445

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/632,249	Applicant(s) TOUCH ET AL.	
	Examiner MELVIN H. POLLACK	Art Unit 2445	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,8-13,15,18,19 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,8-13,15,18,19 and 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>see attached office action</u> . |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3-5, 8-13, 15, 18-19, and 23-26 have been considered but are moot in view of the new ground(s) of rejection.
2. In the response to the last office action, the applicant changed the scope of the claims by adding several limitations to all independent claims. The examiner has determined that the change in scope is materially sufficient to necessitate search and consideration of the added limitations and/or clarifications. As a result, a final amendment is necessitated even if the examiner provides a new art rejection. The examiner acknowledges that no new matter has been added by this amendment.
3. In light of the amendments, the original art rejections have been withdrawn and modified in order to address the new limitations.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 1, 3-5, 8-10, 13, 15, 18-19 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheline et al. (7,197,550) in view of Carrico et al. (2003/0135616).
6. For claims 1, 25, and 26, Cheline teaches a method (abstract) for relocating a network subnet to a remote location (col. 1, line 1 – col. 5, line 6; col. 18, line 58 – col. 19, line 11), comprising:

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- a. Allocating a block of routable network addresses for use in a relocated network subnet at the remote location (col. 5, line 6 – col. 6, line 60), the routable network addresses being hidden from the network subnet by an intervening NAT residing between the network subnet and the relocated network subnet (col. 7, lines 20-45; col. 13, lines 25-50);
 - b. Connecting the relocated network subnet to a tether router (Fig. 1);
 - c. Establishing a tunnel (col. 7, lines 45-65) from the network subnet to the tether router (col. 9, line 1 – col. 10, line 30); and
 - d. Configuring one or more services at the relocated network subnet (col. 9, line 1 – col. 10, line 30); and
 - e. Receiving, from a node in the relocated network subnet using one of the routable network addresses, data packets transmitted over the tunnel (Figs. 4A – 5C);
 - f. Wherein the tunnel is configured to traverse a NAT from encumbering communication between the network subnet and the relocated network subnet (col. 6, line 60 – col. 8, line 50; col. 12, lines 10-20).
7. Cheline does not expressly disclose a tether router separate from the NAT, nor that the tunnel is configured to circumvent the NAT such that the data packets transmitted over the tunnel bypass the NAT. Carrico teaches a method and system (abstract) of traversing NAT devices (Paras. 1-9 and 27) that includes a tether router to bypass the NAT (Paras. 10-17 and 25). At the time the invention was made, one of ordinary skill in the art would have added Carrico to Cheline in order to provide usage of open tunneling protocols (Para. 3).

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8. For claim 3, Cheline teaches that the routable network addresses comprise static IP addresses (col. 9, lines 60-65).
9. For claim 4, Cheline teaches that the routable network addresses are contiguous (col. 10, lines 15-25).
10. For claims 5, 18, Cheline teaches that the allocating a block of routable network addresses is performed by a lease broker (col. 6, line 6 – col. 6, line 60; col. 13, lines 20-50).
11. For claim 8, Cheline teaches that the one or more services comprises a routing configuration at the relocated network subnet for enabling communications over the tunnel (col. 8, lines 45-65).
12. For claim 9, Cheline teaches that the one or more services comprises a DNS server (col. 8, lines 45-65).
13. For claim 10, Cheline teaches that the one or more services comprises a DHCP server (col. 8, lines 45-65).
14. For claim 13, Cheline teaches a system (abstract) for subnet relocation (col. 1, line 1 – col. 5, line 6; col. 18, line 58 – col. 19, line 11), comprising:
 - a. an anchor router (Fig. 1, #112) coupled to a routable network (Fig. 1, #108);
 - b. a tether router (Fig. 1, #132) located remotely from the anchor router (Fig. 1, #116);
 - c. a remote subnet coupled to the tether router (Fig. 1, #156), the subnet comprising a plurality of nodes (Fig. 1, #138-144), the nodes corresponding to a block of relocated routable network addresses, the addresses are not directly visible to the routable network (col. 5, line 6 – col. 6, line 60; col. 7, lines 20-45; col. 13, lines 25-50); and

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d. a tunnel between the anchor router and the tether router (col. 9, line 1 – col. 10, line 30), wherein the the tether router comprises a processor configured to enable the tunnel to traverse the at least one NAT from encumbering communication between the network subnet and the relocated network subnet (col. 6, line 60 – col. 8, line 50; col. 12, lines 10-20)..

15. Cheline does not expressly disclose that the tether router is located behind at least one NAT, nor that the NAT is circumvented and bypassed. Carrico teaches a method and system (abstract) of traversing NAT devices (Paras. 1-9 and 27) that includes a tether router to bypass the NAT (Paras. 10-17 and 25). At the time the invention was made, one of ordinary skill in the art would have added Carrico to Cheline in order to provide usage of open tunneling protocols (Para. 3).

16. For claim 15, Cheline teaches that the tunnel is configured to transmit packets comprising an encapsulation protocol (col. 7, lines 45-65).

17. For claim 19, Cheline teaches a computing apparatus for establishing a remote subnet, comprising:

- a. a tether router (Fig. 1, #132); and
- b. a processor (Fig. 1, #136) configured to establish (col. 9, line 1 – col. 10, line 30) a tunnel from the tether router to an anchor router, the anchor router coupled to a network that is remotely located from the remote subnet (col. 7, lines 45-65), wherein a block of routable addresses are allocated to a user, the block of addresses corresponding to the remote subnet, the tether router for establishing one or more communications ports for the remote subnet (col. 5, line 6 – col. 6, line 60; col. 7, lines 20-45; col. 13, lines 25-50),

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wherein routable addresses are not directly visible to the network, and wherein the tunnel is configured to traverse a NAT from encumbering communication between the anchor router and the relocated network subnet (col. 6, line 60 – col. 8, line 50; col. 12, lines 10-20).

18. Cheline does not expressly disclose that the tether router is located behind at least one NAT, nor that the NAT is circumvented and bypassed. Carrico teaches a method and system (abstract) of traversing NAT devices (Paras. 1-9 and 27) that includes a tether router to bypass the NAT (Paras. 10-17 and 25). At the time the invention was made, one of ordinary skill in the art would have added Carrico to Cheline in order to provide usage of open tunneling protocols (Para. 3).

19. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheline and Carrico as applied to claim 1 above, and further in view of Spacey (2002/0038371).

20. For claim 11, Cheline does not expressly disclose wherein the one or more services comprise a mail server. Spacey teaches this limitation (Paras. 116 – 139). At the time the invention was made, one of ordinary skill in the art would have added this invention in order to handle more realistic scenarios (Para. 27).

21. Claims 12, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheline and Carrico as applied to claims 1 and 19 above, and further in view of Das et al. (6,992,994).

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22. For claim 12 and 23, Cheline does not expressly disclose that the tunnel is configured to automatically reconnect in response to a change in an address associated with one of the components of the tunnel. Das teaches a method and system (abstract) of providing virtual private networks in mobile IP (col. 1, line 1 – col. 8, line 5; col. 12, lines 25-45), wherein a connection remains regardless of change in a home address (col. 9, lines 45-65). At the time the invention was made, one of ordinary skill in the art would have added Das to improve Cheline's telecommunications (DSL) networks (col. 5, lines 45-65).

23. For claim 24, Cheline discloses that a heartbeat signal is periodically emitted across the tunnel (col. 12, lines 40-50; col. 13, lines 30-35).

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELVIN H. POLLACK whose telephone number is (571)272-3887. The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. H. P./
Examiner, Art Unit 2445
12 January 2008

/Larry D Donaghue/
Primary Examiner, Art Unit 2454